

CLAIMS

1. 1. A gas cigarette lighter comprising:
 - 2 a fuel reservoir made of an amorphous polymer material, the reservoir having a top
 - 3 wall, the top wall having an annular groove and an annular wall;
 - 4 a well, the well passing through the top wall;
 - 5 a gas dispensing device including a tubular element, the tubular element being
 - 6 disposed in the well;
 - 7 a ring, the ring engaging the annular groove;
 - 8 wherein the annular groove surrounds the well, and at least a portion of the annular
 - 9 wall is reinforced by the ring.
- 1 2. A cigarette lighter according to claim 1, wherein the top wall forms the
- 2 annular wall between the annular groove and the well, and the annular wall is clamped
- 3 between the ring and the tubular element.
- 1 3. A cigarette lighter according to claim 1, wherein the annular wall is formed
- 2 by the annular groove.
- 1 4. A cigarette lighter according to claim 1, wherein the annular groove has a
- 2 first annular face facing radially outwards, and the ring has a first annular face facing
- 3 radially inwards, and the first groove face and the first ring face are engaged in tight-fitting
- 4 manner with one another.
- 1 5. A cigarette lighter according to claim 4, wherein the annular groove has a
- 2 second annular face facing radially inwards, and the ring has a second annular face facing
- 3 radially outwards, and the second annular groove face and the second ring face are not in
- 4 engaged in tight-fitting manner with one another.
- 1 6. A cigarette lighter according to claim 1, wherein the well, the tubular
- 2 element, the ring and the groove are in the shape of a cylinder that is circularly-
- 3 symmetrical, the groove having a certain inside diameter, and the ring having an inside
- 4 diameter that is no larger than the inside diameter of the groove, the well having a certain
- 5 diameter and the tubular element having a certain outside diameter that is no smaller than
- 6 the diameter of the well.

1 7. A cigarette lighter according to claim 6, wherein the groove has a certain
2 outside diameter, and the ring has an outside diameter that is no larger than the outside
3 diameter of the groove.

1 8. A cigarette lighter according to claim 1, wherein the lighter is provided with
2 a head that overlies the reservoir, the head having an ignition device and a device for
3 controlling the gas dispensing device, the ring being part of the head of the lighter.

1 9. A cigarette lighter according to claim 8, wherein the head and the ring are
2 formed as a single piece made of a semi-crystalline polymer material.

1 10. A cigarette lighter according to claim 8, wherein the tubular element is
2 engaged by force in a hole provided in the head.

1 11. A cigarette lighter according to claim 1, wherein the gas dispensing device
2 includes a regulating device and a valve that are received inside the tubular element.

1 12. A cigarette lighter according to claim 11, wherein the tubular element is
2 made of metal and has an internal shoulder against which a micro-porous disk is held by a
3 retaining ring, the tubular element having one end crimped against the retaining ring.

1 13. A cigarette lighter according to claim 1, wherein the reservoir has a side wall
2 against which the top wall is bonded.

1 14. A cigarette lighter according to claim 1, wherein the reservoir is formed of a
2 material selected from the group consisting of ABS or SAN.

1 15. A gas cigarette lighter comprising:
2 a fuel reservoir having a bottom wall, an annular side wall extending therefrom and
3 a top end;
4 a top wall disposed on the top end, the top wall having an annular groove and an
5 annular wall;
6 a head disposed on the top wall, the head having a ring, the ring being disposed
7 within the annular groove;
8 a well disposed within the top wall, the well containing a tubular element disposed
9 therein; and
10 a gas dispensing device disposed within the tubular element.

1 16. A cigarette lighter according to claim 15, wherein the top wall forms the
2 annular wall between the annular groove and the well, and the annular wall is clamped
3 between the ring and the tubular element.

1 17. A cigarette lighter according to claim 15, wherein the annular wall is formed
2 by the annular groove.

1 18. A cigarette lighter according to claim 15, wherein the annular groove has a
2 first annular face, facially radially outwards, and the ring has a first annular face facing
3 radially inwards; and the first groove face and the first ring face are engaged in tight-fitting
4 manner with one another.

1 19. A cigarette lighter according to claim 18, wherein the annular groove has a
2 second annular face facing radially inwards, and the ring has a second annular face facing
3 radially outwards; and the second groove face and the second ring face are not engaged in
4 tight-fitting manner with one another.

1 20. A cigarette lighter according to claim 15, wherein the well, the tubular
2 element, the ring and the groove are in the shape of a cylinder that is circularly-
3 symmetrical.

1 21. A cigarette lighter according to claim 20, wherein the groove has an inside
2 diameter, and the ring has an inside diameter; the ring diameter being no larger than the
3 groove diameter.

1 22. A cigarette lighter according to claim 20, wherein the well has a diameter
2 and the tubular element has an outside diameter; the tubular element diameter being no
3 smaller than the well diameter.

1 23. A cigarette lighter according to claim 20, wherein the groove has an outside
2 diameter, and the ring has an outside diameter; the ring diameter is no larger than the
3 groove diameter.

1 24. A cigarette lighter according to claim 15, wherein the head has an ignition
2 device and a device for controlling the gas dispensing device.

1 25. A cigarette lighter according to claim 15, wherein the head and the ring are
2 formed as a single piece made of a semi-crystalline polymer material.

1 26. A cigarette lighter according to claim 15, wherein the tubular element is
2 engaged by force in a hole provided in the head.

1 27. A cigarette lighter according to claim 15, wherein the gas dispensing device
2 includes a regulating device and a valve that are received inside the tubular element.

1 28. A cigarette lighter according to claim 27, wherein the tubular element is
2 made of metal and has an internal shoulder against which a micro-porous disk is held by a
3 retaining ring, the tubular element having one end crimped against the retaining ring.

1 29. A cigarette lighter according to claim 15, wherein the reservoir has a side
2 wall against which the top wall is bonded.

1 30. A cigarette lighter according to claim 15, wherein the reservoir is made of an
2 amorphous polymer material.

1 31. A cigarette lighter according to claim 30, wherein the reservoir is formed of
2 a material selected from the group consisting of ABS or SAN.

1 32. A gas cigarette lighter comprising a reservoir including a top wall for
2 containing a fuel supply; a gas dispensing device for releasing fuel from the fuel supply; a
3 control device for actuating the gas dispensing device and releasing the fuel; and an ignition
4 mechanism for igniting the released fuel; the lighter further comprising:
5 a well disposed within the top wall of the reservoir;
6 a tubular element disposed within the well; the tubular element be provided with the
7 gas dispensing device; and
8 a means for sealing the tubular element to the top wall;
9 wherein the sealing means results from direct contact of the tubular element to the
10 top wall.

1 33. A cigarette lighter according to claim 32, wherein the reservoir is made of an
2 amorphous polymer material.

1 34. A cigarette lighter according to claim 33, wherein the reservoir is formed of
2 a material selected from the group consisting of ABS or SAN.

1 35. A cigarette lighter according to claim 32, further comprises a ring, and the
2 top wall has an annular wall and an annular groove, wherein the ring engages the groove.

1 36. A cigarette lighter according to claim 35, wherein the annular wall is
2 clamped between the ring and the tubular element.

1 37. A cigarette lighter according to claim 35, wherein the annular groove has a
2 first annular face, facially radially outwards, and the ring has a first annular face facing
3 radially inwards; and the first groove face and the first ring face are engaged in tight-fitting
4 manner with one another.

1 38. A cigarette lighter according to claim 37, wherein the annular groove has a
2 second annular face facing radially inwards, and the ring has a second annular face facing
3 radially outwards; and the second groove face and the second ring face are not engaged in
4 tight-fitting manner with one another.

1 39. A cigarette lighter according to claim 35, wherein the well, the tubular
2 element, the ring and the groove are in the shape of a cylinder that is circularly-
3 symmetrical.

1 40. A cigarette lighter according to claim 39, wherein the groove has an inside
2 diameter, and the ring has an inside diameter; the ring diameter being no larger than the
3 groove diameter.

1 41. A cigarette lighter according to claim 39, wherein the well has a diameter
2 and the tubular element has an outside diameter; the tubular element diameter being no
3 smaller than the well diameter.

1 42. A cigarette lighter according to claim 39, wherein the groove has an outside
2 diameter, and the ring has an outside diameter; the ring diameter is no larger than the
3 groove diameter.

1 43. A cigarette lighter according to claim 35, further comprising a head having
2 an ignition device and a device for controlling the gas dispensing device.

1 44. A cigarette lighter according to claim 43, wherein the head and the ring are
2 formed as a single piece made of a semi-crystalline polymer material.

1 45. A cigarette lighter according to claim 43, wherein the tubular element is
2 engaged by force in a hole provided in the head.

1 46. A cigarette lighter according to claim 32, wherein the gas dispensing device
2 includes a regulating device and a valve that are received inside the tubular element.

1 47. A cigarette lighter according to claim 46, wherein the tubular element is
2 made of metal and has an internal shoulder against which a micro-porous disk is held by a
3 retaining ring, the tubular element having one end crimped against the retaining ring.

1 48. A cigarette lighter according to claim 32, wherein the reservoir has a side
2 wall against which the top wall is bonded.